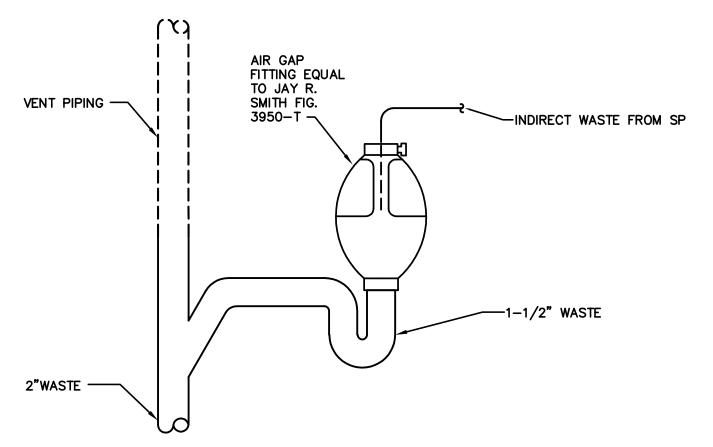
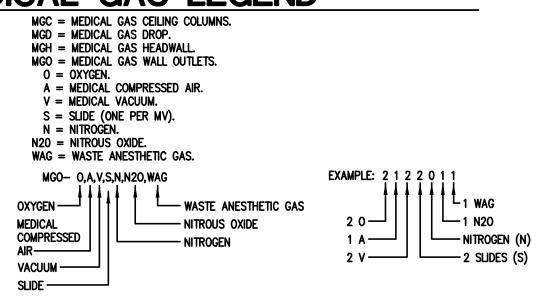
ZONE VALVE BOX SCHEDULE									
DESIGNATION		i	SIZE OF PIPI	NG & VALVE	•	i	LOCATION	SERVING	AREA ALARM
<u> </u>	0	A	٧	N	N ₂ 0	WAG		<u> </u>	
ZVB-1	3/4"	1/2"	3/4"	-	-	-	NURSE STATION	PATIENT ROOMS	AA-1
ZVB-2	3/4"	1/2"	3/4"	_	_	_	NURSE STATION	PATIENT ROOMS	AA-2



TYPICAL INDIRECT DRAIN WITH AIR GAP DETAIL NO SCALE

MEDICAL GAS LEGEND



MEDICAL GAS NOTES: 1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT MEDICAL GAS OUTLET LOCATIONS AND MOUNTING HEIGHTS.

2. NOT ALL GASES MAY BE USED. THE GAS ORDER SHOWN IN THE EXAMPLE WILL BE TYPICAL FOR ALL OUTLETS.

3. PROVIDE BLANK COVER PLATE BETWEEN VACUUM OUTLET AND SLIDE.

PLUMBING FIXTURE SCHEDULE WASTE | VENT | CW HW REMARKS KOHLER K-4330, WALL HUNG, SLOAN "ROYAL OPTIMA" 111 1.6 ES-S TMO SENSOR OPERATED FLUSH VALVE WITH TRANSFORMER AND POSITIONING & WALL HUNG SUPPORT KIT, CHURCH #9500C OPEN FRONT SEAT, LESS COVER, JAY. R. **HANDICAPPED** WATER CLOSET KOHLER K-4330-L, WALL HUNG, BEDPAN LUGS, SLOAN "ROYAL" BPW-1150-1.6 FLUSH VALVE, CHURCH #9500C OPEN FRONT SEAT, LESS WALL HUNG WITH BED PAN WASHER COVER, JAY. R. SMITH CARIIER. HANDICAPPED KOHLER K-2035-1. JAY R. SMITH CARRIER. CHICAGO FAUCET 116.101.AB.1. LAVATORY, WALL HUNG 1-1/2" | 1-1/2" 1/2" HARDWIRED TRANSFORMER 240.631.00.1. 119 THERMOSTATIC MIXING VALVE. HANDICAPPED McGUIRE 155A STRAINER, PW2150 P-TRAP AND SUPPLY COVERS, 2165-LK LOOSE KEY SUPPLIES. MOUNT RIM PER ADA REQUIREMENTS. SET MIXING KOHLER K-2035-8, JAY R. SMITH CARRIER, CHICAGO FAUCET 404-317CP, McGUIRE 155A STRAINER, PW2105 P-TRAP AND SUPPLY COVERS, LK-2165 LAVATORY, WALL HUNG 1-1/2" | 1-1/2" HANDICAPPED LOOSE KEY SUPPLIES. MOUNT RIM PER ADA REQUIREMENTS KOHLER K-2035-8, JAY R. SMITH CARRIER, CHICAGO FAUCET 786-TWGN2F LAVATORY, WALL HUNG 1-1/2" | 1-1/2" | CHICAGO FAUCET PEDAL VALVE 834-EPSLOCP, McGUIRE 155A STRAINER, HANDICAPPED PW2105 P-TRAP AND SUPPLY COVERS, LK-2165 LOOSE KEY SUPPLIES. MOUNT RIM PER ADA REQUIREMENTS KOHLER K-2035-1. JAY R. SMITH CARRIER. CHICAGO FAUCET 116.103.AB.1. LAVATORY, WALL HUNG 1-1/2" | 1-1/2" | TRANSFORMER 240.631.00.1 119 THERMOSTATIC MIXING VALVE. McGUIRE 15 HANDICAPPED STRAINER. PW2105 P-TRAP AND SUPPLY COVERS, LK-2165 LOOSE KEY SUPPLIES. MOUNT RIM PER ADA REQUIREMENTS ELKAY LRAD 3319-55-3, 5.5" DEEP, 3-HOLE, 18GA, CHICAGO FAUCET 1-1/2" | 1-1/2" 786-GN2FC GOOSE NECK FAUCET WITH WRIST BLADES HANDLES, McGUIRE SINK, TWO COMPARTMENT CONTINUOUS WASTE, 151 BASKET STRAINERS, 8912 P-TRAP AND 2165-LK LOOSE KEY SUPPLIES KOHLER 2609, CHICAGO FAUCET 116.203.21.1, 119 THERMOSTATIC MIXING 1-1/2" | 1-1/2" I UNDER COUNTER MOUNT VALVE, McGUIRE 152 GRID STRAINER, PW2105 P-TRAP AND SUPPLY STAINLESS STEEL LAVATORY COVERS. 2165-LK LOOSE KEY SUPPLIES. IANDICAPPED POWERS E420 E420-T/S-1-2-0-0-3-B-W COMBINATION T/P SHOWER PAN 2"FD | 1-1/2" | 1/2" TEMPERING VALVE SYSTEM ASSE 1016, COLOR CODED TRIM PLATE, IN-LINE HANDICAPPED VACUUM BREAKER, HAND HELD METAL HOSE, 30" SLIDE BAR, SHOWER PA SPECIFIED BY ARCHITECT. SEE NOTE 3. FIAT MSB-2424 MOLDED STONE, 830-AA FAUCET WITH VACUUM BREAKER, 3" | 1-1/2" | 1/2" MS-1 832-AA HOSE AND BRACKET, (2) E-77-A BUMPER GUARD, (2) MSG-2424 WALL GUARD KOHLER K-12867 9512.013 WITH RIM GUARDS AND STRAINER, SLOAN ROYAL CLINICAL SERVICE SINK 117 FLUSH VALVE, CHICAGO FAUCET 815-VB, WITH 809 RINSE SPRAYER, JAY WALL HUNG R. SMITH CARRIER ELKAY LNTEM8K, STAINLESS STEEL FINISH, 120V, 1 PHASE, 4.0 FLA, WATER FILTER, McGUIRE 8902 P-TRAP, 2165-LK SUPPLY. MOUNT HANDICAP SPOUT TWO-LEVEL PER ADA REQUIREMENTS. HANDICAPPE

1. ALL FIXTURES SHALL BE WHITE IN COLOR UNLESS OTHERWISE NOTED.

- . MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PLUMBING FIXTURES OF ONE OF THE FOLLOWING:
- i. Exact location of shower pan (by architect) drain location shall be coordinated with floor structure and each shower pan ordere ACCORDINGLY. DRAIN BODY FOR SHOWER PAN SHALL BE OF CAST BRASS OR OTHER NON-PVC MATERIAL.

ITEM ID	ITEM DESCRIPTION	MANUFACTURER/MODEL NO.
FD	FLOOR DRAIN	JAY R. SMITH FIG. 2005-A, TRAP PRIMER CONNECTION
FD-1	FLOOR DRAIN	JAY R. SMITH FIG. 2005-050-F37-NB, TRAP PRIMER CONNECTION, ANTI-FLOOD RIM, NICKEL BRONZE
FS	FLOOR SINK	JAY R. SMITH FIG. 3160-12 HALF GRATE, TRAP PRIMER CONNECTION
PRV	PRESSURE REGULATING VALVE	FISHER 66 SERIES, EQUIMETER OR EQUAL, WHEN USED IN INTERIOR SPACES, ROUTE VENT TO EXTERIOR.
BV	BALANCING VALVE	BELL & GOSSETT CIRCUIT SETTER RF, (BALANCE TO GPM) OR EQUAL BY TACO OR BELL & GOSSETT
TP	TRAP PRIMER	PPP INC. PR-500 WITH DU-U WHERE MULTIPLE DRAINS ARE PRIMED
CO	FLOOR CLEANOUT	J.R. SMITH FIG. FIG. 4033
WCO	WALL CLEANOUT	J.R. SMITH FIG. FIG. 4472
RPZ	REDUCED PRESSURE ZONE BACKFLOW PREVENTOR	WATTS 909-QT-S, STRAINER, WITH AIR GAP DRAIN. ROUTE AIR GAP DRAIN TO NEAREST FD.
SA	SHOCK ABSORBER	JAY R. SMITH FIG. 5020
DB-1	DIALYSIS BOX	BRADLEY 7920—SSV STAINLESS STEEL BODY, SIDE HINGE LOCKING DOOR, STAINLESS STEEL VALVE, DRAIN, DOUBLE CHECK VALVE ON SUPPLY WATS SERIES 7.
FS	FLOOR SINK	JAY R. SMITH FIG. 3160-12 HALF GRATE, TRAP PRIMER CONNECTION
FS-1	FLOOR SINK	JAY R. SMITH FIG. 3150-050, TRAP PRIMER CONNECTION
IMB	ICE MAKER BOX	SIOUX CHIEF 662-112, WITH INTEGRAL MINI-RESTER
HB	HOSE BIBB	JAY R. SMITH FIG. 5609QT, INTEGRAL VACUUM BREAKER

\longrightarrow — SP — SPRINKLER PIPING (SPRK.) --|wco WALL CLEANOUT — SDR — SPRINKLER DRAIN RISER PIPING CLEANOUT PLUG — DSP — | DRY SPRINKLER PIPING FIRE HOSE VALVE → GATE VALVE DIRECTION OF SLOPE ────────│ BUTTERFLY VALVE DIRECTION OF FLOW ──◆─── │ BALL VALVE CAP OUTLET OR PLUGGED OUTLET ──▶• | GLOBE VALVE TEMPERATURE AND PRESSURE RELIEF VALVE AIR CHAMBER ──♥─── │ GAS COCK / PLUG VALVE CHECK VALVE SOLENOID VALVE EXISTING PIPING TO BE REMOVED PRESSURE REGULATION VALVE (PRV) CONNECT NEW TO EXISTING EXISTING SPRINKLER HEAD RELOCATED NEW SRINKLER HEAD NEW SPRINKLER HEAD LOCATION IN-LINE CIRCULATING <u>—</u>Ğ— → H VALVE IN VERTICAL PLUMBING ABBREVIATIONS RATED WALL PENETRATIONS ALL RATED WALL PENETRATIONS MUST MAINTAIN WALL RATING. USE UL LISTED FIRESTOPPING DETAILS FOR ALL RATED WALL PENETRATIONS. ABOVE HUNG CEILING ACCESS PANEL OR DOOR AIR CHAMBER PLUMBING GENERAL NOTES: BELOW FINISH FLOOR BACKFLOW PREVENTOR BELOW GRADE 2 ALL PIPING SHOWN ON THE PLANS OR INDICATED BY NOTES SHALL BE CONCEALED DRINKING FOUNTAIN ABOVE THE CEILING OR IN THE WALLS UNLESS NOTED OTHERWISE. ELECTRIC WATER COOLER **GENERAL NOTE:** FLOOR DRAIN FLOOR SINK THE DESIGN/DETAIL/SECTION SHOWN IS BASED ON SCHEDULED EQUIPMENT AND IS INTENDED ONLY GENERAL CONTRACTOR TO SHOW THE GENERAL SIZE, CONFIGURATION, LOCATION, CONNECTIONS AND/OR SUPPORT FOR GCO GRADE CLEANOUT EQUIPMENT OR SYSTEMS SPECIFIED WITH RELATION TO THE OTHER BUILDING SYSTEMS. SEE SPECIFICATIONS FOR TECHNICAL REQUIREMENTS PERTAINING TO THE EQUIPMENT. APPLIANCE WATER CONNECTION DOWNSPOUT

T Ratings - 0 and 1 Hr (See Item 1 L Rating At Ambient - 4 CFM/Sq Ft (See Item 4) L Rating At 400 F - Less Than 1 CFM/Sq Ft (See Item 4)

System No. W-L-5257

F Ratings - 1 and 2 Hr (See Item 1

1. WALL ASSEMBLY — THE 1 OR 2 HR FIRE-RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300. U400 OR V400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES: A. STUDS — WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER SPACED 16 IN. (406 MM) OC. STEEL STUDS TO BE MIN 3-1/2 IN. (89 MM) WIDE AND SPACED MAX 24 IN. (610

SECTION A-A

B. GYPSUM BOARD* - 5/8 IN. (16 MM) THICK, 4 FT (122 CM) WIDE, WITH SQUARE OR TAPERED EDGES. THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX DIAM OF OPENING IS 8 IN. (203 MM). THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED. THE HOURLY T RATING OF THE FIRESTOP

THROUGH PENETRANT — ONE METALLIC PIPE OR TUBE TO BE INSTALLED ECCENTRICALLY OR CONCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PIPE OR TUBE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES AND TUBES MAY BE USED:

SYSTEM IS 1 HR FOR 2 HR FIRE RATED WALLS AND 0 HR FOR 1 HR FIRE RATED WALLS.

A. STEEL PIPE - NOM 4 IN. (102 MM) DIAM (OR SMALLER) SCHEDULE 5 (OR HEAVIER) STEEL B. IRON PIPE - NOM 4 IN. (102 MM) DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE. C. COPPER PIPE - NOM 4 IN. (102 MM) DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER D. COPPER TUBE - NOM 4 IN. (102 MM) DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER

3. PIPE COVERING* - NOM 1-1/2 IN. (38 MM) THICK HOLLOW CYLINDRICAL HEAVY DENSITY 3.5 PCF OR 24 KG/M3) GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. LÓNGITUDINAL JOINTS SEALED WITH METAL FASTENERS OR FACTORY-APPLIED SELF-SEALING LAP TAPE. TRANSVERSE JOINTS SECURED WITH METAL FASTENERS OR WITH BUTT TAPE SUPPLIED WITH THE PRODUCT. THE ANNULAR SPACE BETWEEN THE INSULATED PIPE AND THE PERIPHERY OF THE OPENING SHALL BE MIN 0 IN. (POINT CONTACT) TO MAX 7/8 IN.

SEE PIPE EQUIPMENT COVERING — MATERIALS— (BRGU) CATEGORY IN THE BUILDING MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS. ANY PIPE COVERING MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL CLASSIFICATION MARKING WITH A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED.

4. FILL, VOID OR CAVITY MATERIAL* - SEALANT - MIN 5/8 IN. (16 MM) THICKNESS OF FILI MATERIAL APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL ASSEMBLY, AT POINT CONTACT LOCATION, MIN 1/2 IN. (13 MM) DIAM BEAD OF FILL MATERIAL APPLIED AT INSULATED METALLIC PIPE/WALL INTERFACE ON BOTH SURFACES OF WALL. L RATINGS APPLY ONLY WHEN FS-ONE SEALANT IS USED. HILTI CONSTRUCTION CHEMICALS, DIV OF

HILTI INC - FS-ONE SEALANT, CP 606 SEALANT OR CP 601S SEALANT

CONSTRUCTION DOCUMENTS 100% SUBMITTAL

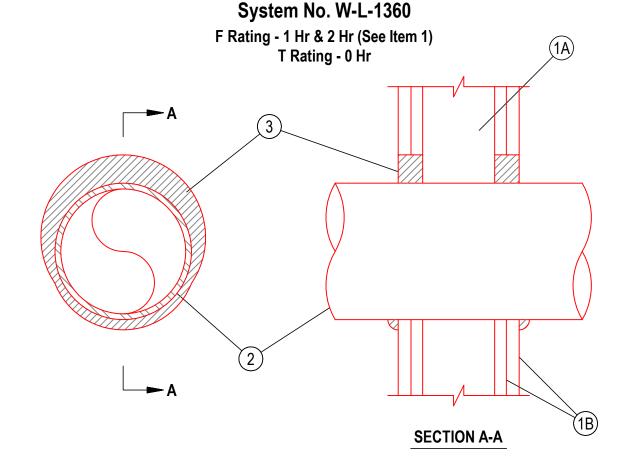
CONSTRUCTION DOCUMENTS 95% SUBMITTAL

DESIGN DEVELOPMENT 50% SUBMITTAL

SCHEMATIC DESIGN 15% SUBMITTAL

VA FORM 08-6231, OCT 1978

FIRE PENETRATION DETAIL



. WALL ASSEMBLY -- THE 1 OR 2 HR FIRE RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BI CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300, U400 OR V400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. STUDS -- WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 2-1/2 IN. WIDE AND SPACED B. GYPSUM BOARD* -- THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300, U400 OR V400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 26-5/8 IN.

THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.

THROUGH-PENETRANT -- ONE METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE AS SPECIFIED IN THE TABLE BELOW. (POINT CONTACT) TO MAX 1-1/2 IN. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:

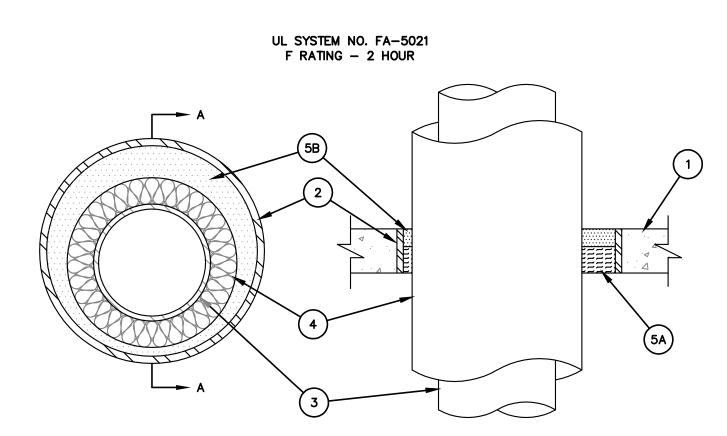
A. STEEL PIPE -- NOM 24 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE. B. IRON PIPE -- NOM 24 IN. DIAM (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE. C. CONDUIT -- NOM 6 IN. DIAM (OR SMALLER) STEEL CONDUIT OR NOM 4 IN DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING. D. COPPER TUBING -- NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING E. COPPER PIPE -- NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

,							
Pipe	Max Nom. Diam., in.	Min Max. Annular Space, in.					
A, B	10	0 to 1-1/2					
A, B	24	0 to 7/8					
С	6, 4	0 to 1-1/2					
D, E	4	0 to 1-1/2					
D. E	6	0 to 7/8					

3. FILL, VOID OR CAVITY MATERIALS* - CAULK -- MIN 5/8 IN. AND 1-1/4 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL ASSEMBLY FOR 1 OR 2 HR RATED WALLS, RESPECTIVELY. WHEN THE ANNULAR SPACE DOES NOT EXCEED 7/8 IN., IN 5/8 IN. THICKNESS OF FILL MATERIAL REQUIRED FOR BOTH 1 AND 2 HR RATED WALLS. AT THE POINT CONTACT LOCATION BETWEEN THROUGH PENETRANT AND BOARD, A MIN 1/2 IN. DIAM BEAD OF SEALANT SHALL BE APPLIED AT THE BOARD/ THROUGH PENETRANT INTERFACE ON BOTH SURFACES OF WALL ASSEMBLY.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC -- CP601S ELASTOMERIC FIRESTOP SEALANT *BEARING THE UL CLASSIFICATION MARK

FIRE PENETRATION DETAIL



SECTION A-A

1. FLOOR ASSEMBLY -- MIN 2-1/2 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. MAX DIAM OF OPENING IS 18 IN. 1A. FLOOR ASSEMBLY -- (OPTIONAL -- NOT SHOWN) -- THE FIRE RATED UNPROTECTED CONCRETE AND STEEL FLOOR ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL D900 SERIES DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND AS SUMMARIEZED

A. CONCRETE -- MIN 2-1/2 IN. THICK REINFORCED LIGHTWEIGHT ON NORMAL WEIGHT (100-150 PCF) CONCRETE. B. STEEL FLOOR AND FORM UNITS* -- COMPOSITE OR NON-COMPOSITE MAX 3 IN. DEEP GALV STEEL FLUTED UNITS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN.

COPPER PIPE -- NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

. METALLIC SLEEVE -- (OPTIONAL) -- NOM 18 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE. . Through—penetrant `— one metallic pipe or tubing to be installed within the firestop device. Pipe or tubing to be rigidly supported on BOTH SIDES OF FLOOR ASSEMBLY. THE FOLLOWING TYPES OF PIPE OR TUBING MAY BE USED: STEEL PIPE -- NOM 12 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE. COPPER TUBING -- NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.

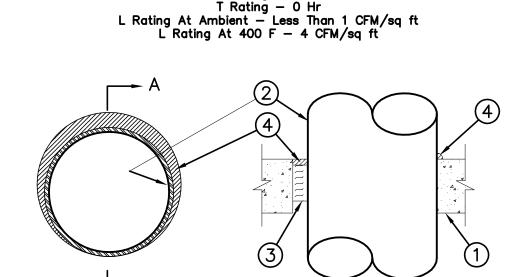
4. PIPE COVERING* -- NOM 1-1/2 IN. THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN 3.5 PCF) GLASS FIBER UNITS, JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. LONGITUDINÁL JOINTS SEALED WITH METAL FASTENERS OR FACTÒRY—APPLIED SSL TAPE. TRANSVERSE JOINTS SECURED WITH METAL FASTENERS OR WITH BUTT TAPE SUPPLIED WITH THE PRODUCT. THE ANNULAR SPACE BETWEEN THE INSULATED PIPE AND THE PERIPHERY OF THE OPENING SHALL BE MIN 1/2 IN. TO A MAX 1-7/8 IN. SEE PIPE EQUIPMENT COVERING -- MATERIALS (BRGU) CATEGORY IN THE BUILDING MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS. ANY PIPE COVERING

MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL CLASSIFICATION MARKING WITH A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED. 5. FIRESTOP SYSTEM -- THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING: A. PACKING MATERIAL -- MIN 1-1/2 IN. THICKNESS OF MIN 4 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM.

PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL. B. FILL, VOID OR CAVITY MATERIAL* -- SEALANT -- MIN 1 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC -- FS-ONE SEALANT *BEARING THE UL CLASSIFICATION MARK

> FIRE PENETRATION DETAIL NO SCALE



System No. C-AJ-1149

F Rating — 2 Hr

1. FLOOR OR WALL ASSEMBLY - MIN 4-1/2 IN. THICK REINFORCED LIGHTWEIGHT O NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS *. MAX DIAM OF OPENING IS 12 IN. FOR NAMES OF MANUFACTURERS.

PIPES, CONDUITS OR TUBING MAY BE USED:

SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY 2. THROUGH PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE ANNULAR SPACE SHALL BE 0 IN (POINT CONTACT) TO MAX 1-1/4 IN. THE FOLLOWING TYPES AND SIZES OF METALLIC

SECTION A-A

A. STEEL PIPE - NOM 10 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) B. CAST IRON - NOM 10 IN. DIAM (OR SMALLER) C. CONDUIT - NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING

D. COPPER TUBING - NOM 4 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING. E. COPPER PIPE - NOM 4 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER

INSULATION FOR NOM 4 IN. DIAM (AND SMALLER) PIPES, CONDUITS OR TUBINGS AND

A MIN 4 IN. THICKNESS OF MIN 4 PCF MINERAL WOOL BATT INSULATION FOR PIPE

3. PACKING MATERIAL - MIN 3 IN. THICKNESS OF MIN 4 PCF MINERAL WOOL BATT

GREATER THAN NOM 4 IN. DIAM, FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS 4. FILL, VOID OR CAVITY MATERIAL* - SEALANT - MIN 1/2 IN. THICKNESS OF FILL

MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH THE TOP SURFACE OF FLOOR OR BOTH SURFACES OF WALL. AT THE POINT OF CONTACT LOCATION BETWEEN PIPE AND CONCRETE, A MIN 1/2 IN. DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/PIPE INTERFACE ON THE TOP SURFACE OF FLOOR AND ON BOTH SURFACES

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - CP601S, CP606 OR NOTE: L RATINGS ONLY APPLY ONLY WHEN FS—ONE SEALANT IS USED). *BEARING THE UL CLASSIFICATION MARKING

FIRE PENETRATION DETAIL

PLUMBING GENERAL NOTES

PLUMBING LEGEND

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DESCRIPTION

GAS PRESSURE REGULATOR VALVE

STRAINER WITH BLOW-OFF VALVE

HYDRAULIC SHOCK ARRESTOR (SA)

VACUUM BREAKER (VARIOUS TYPES)

HUB DRAIN (ALL TYPES) (SPECIFY)

PRESSURE GAUGE WITH GAUGE COCK

THERMOMETER WITH SHUT-OFF COCK

HOSE BIBB (HB) OR WALL HYDRANT (WH)

FLOOR/GRADE CLEAN OUT

FLOOR DRAIN/FLOOR SINK

BALANCING VALVE

STRAINER

GAUGE COCK

SLEEVE THRU WALL

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATICALLY AND MAY NOT BE TO SCALE.

DESCRIPTION

DOMESTIC COLD WATER (TYPE 'L' HARD DRAWN COPPER)

DOMESTIC HOT WATER (TYPE 'L' HARD DRAWN COPPER)

— --- DOMESTIC HOT WATER RETURN (TYPE 'L' HARD DRAWN COPPER)

BACKFLOW PREVENTER (RPBFP)

SANITARY VENT PIPING

—85°— TEPID WATER (EMERGENCY FIXTURES)

——G—— | NATURAL GAS PIPING (LOW PRESSURE)

— MPG — │ MEDIUM PRESSURE NATURAL GAS PIPING

—SW—— | SPECIAL WASTE PIPING (CPVC)

---sv---- | SPECIAL VENT PIPING (CPVC)

—ODL — OVERFLOW ROOF DRAIN LEADER

-NPW- | NON POTABLE WATER SUPPLY

- PS - SUMP PUMP DISCHARGE PIPING

— DPD — DRIP PAN DRAIN PIPING

I. INFORMATION ON EXISTING SERVICES WAS TAKEN FROM EXISTING DRAWINGS AND LIMITED FIELD SURVEY. FOR THIS REASON, EXISTING SERVICES MAY DIFFER FROM THAT AS SHOWN. ALL OBSERVED DISCREPANCIES WITH EXISTING SYSTEMS SHALL BE DOCUMENTED ON THE PROJECT RECORD DOCUMENTS. 2. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT FOR THE COMPLETION OF ALL WORK SHOWN ON THE DRAWINGS AND/OR SPECIFIED. THIS

3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE STATE AND LOCAL CODES, (2006 VUSBC, 2006 IPC) THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), THE ENVIRONMENTAL PROTECTION AGENCY (EPA), THE LOCAL AUTHORITIES HAVING JURISDICTION AND VIRGINIA DEPARTMENT OF HEALTH REGULATIONS. ALL EQUIPMENT, MATERIALS, ETC. SHALL BE NEW UNLESS NOTED OTHERWISE AND SHALL MATCH ALL FACILITY STANDARDS OR IF APPROVED BY THE OWNER, BE OF THE SAME QUALITY AS REPRESENTED BY THE SCHEDULED ITEM.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL COORDINATION OF TRADES WITH EXISTING STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL AND SPRINKLER SYSTEMS AND PROVIDING NECESSARY OFFSETS, TRANSITIONS, PIPE REROUTING, MATERIALS AND LABOR TO ARRANGE EQUIPMENT, DUCTWORK AND PIPING AS REQUIRED FOR A PROPER AND ACCESSIBLE INSTALLATION. THIS SHALL INCLUDE ANY RELOCATION OF EXISTING EQUIPMENT OR SERVICES TO PROVIDE SPACE NEW EQUIPMENT AND

5. THE ROUTING OF ALL PIPING AS SHOWN ON THE DRAWINGS IS DIAGRAMMATIC ONLY, INTENDING TO SHOW GENERAL ROUTING AND LOCATIONS OF EQUIPMENT, PIPING

AND SPECIALTIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE EXACT LOCATION AND COORDINATION OF ALL ITEMS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SCRAP MATERIALS AND DEBRIS ASSOCIATED WITH THIS WORK FROM THE SIGHT.

SHALL INCLUDE ANY INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE IN ALL RESPECTS AND READY FOR OPERATION.

7. PROVIDE FINAL CONNECTION TO ALL EQUIPMENT FURNISHED BY OWNER AND/OR OTHERS.

8. ALL PIPING SHOWN ON THE PLANS OR INDICATED BY NOTES SHALL BE CONCEALED ABOVE THE CEILING OR IN THE WALLS UNLESS NOTED OTHERWISE 9. ALL PIPING BRANCHES SUPPLYING PLUMBING FIXTURES SUBJECT TO WATER HAMMER SHALL BE PROTECTED BY SHOCK ABSORBERS SIZED PER THE PLUMBING AND DRAINAGE INSTITUTE (PDI).

10. COMPLETE INSTALLATION DRAWINGS ARE REQUIRED. CONSTRUCTION WORK SHALL NOT START ON ANY SYSTEM UNTIL THE LAYOUT DRAWINGS HAVE BEEN APPROVED. 11. MEDICAL GAS CERTIFIER SHALL REVIEW AND APPROVE ALL MEDICAL GAS DESIGN PRIOR TO INSTALLATION. ANY ISSUES SHALL BE RESOLVED PRIOR TO INSTALLATION.

NO SCALE

Veterans Affairs

INVERT ELEVATION

MOP SINK BASIN

SANITARY SEWER

SPECIAL VENT (CPVC)

VENT THROUGH ROOF

SPECIAL WASTE (CPVC)

ROOF DRAIN

VENT STACK

WASTE STACK

WALL HYDRANT

WATER CLOSET

YARD CLEANOUT

SHOWER SINK

YCO

S.-SK.

PRESSURE REDUCING VALVE

L.-LAV. LAVATORY

MANHOLE

FULLY SPRINKLERED Drawing Title Project Title Project Number **CONSULTANTS:** SEAL: ARCHITECT/ENGINEERS: 688-336 PLUMBING LEGEND, NOTES, AND VA MEDICAL CENTER 4E Office of CORNER **SCHEDULES** PATIENT WARD EXPANSION **STRUCTURAL** LIFE SAFETY **Facilities** CONSTRUCTION DOCUMENTS 100% SUBMITTAL FOR BID 06/13/2012 **DAVID WRIGHT** JOHN MITROS Management JOHN HANCOCK **Approved: Project Director** Richmond, Virginia 23220 RHINO FIRE PROT. ENG. PLC CCRD PARTNERS STROUD-PENCE & ASSOC. CA PROJECT 00938.02 WASHINGTON No. 90/249 Telephone: 8 0 4.3 5 3.3 0 5 1 P1.01 4198 COX RD., SUITE 110 250 EXCHANGE PLACE, #B 3311 W. BROAD ST **Z** Facsimile: 8 0 4.3 5 8.1 4 4 2 HERNDON, VA 20107 RICHMOND. VA 23230 GLEN ALLEN, VA 20107 Checked Department of (703) 481-8914 (703) 481-8914 (V) (804) 355-2067 TB/ DEW